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**IMPACT OF NON-TARIFF BARRIERS IN TEXTILE SECTOR:
 EMPIRICAL EVIDENCE OF INDIA WITH RCEP**

**WPŁYW BARIER POZATARYFOWYCH W SEKTORZE
 TEKSTYLNYM: DOWODY EMPIRYCZNE INDII Z RCEP**

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Abstract

Subject and purpose of work: The article is based on primary research into the effects of non-tariff obstacles on Indian textile manufacturers doing business with certain RCEP countries.

Materials and methods: A qualitative survey was conducted in three Indian states: Punjab, Haryana, and Rajasthan. The top firms in all three states are manufacturing firms, and nine out of twenty have addressed the problem of non-tariff barriers.

Results: The survey's primary findings revealed that Indian textile producers confront hurdles such as antidumping, certification, customs, documentation, environmental, export limitations, labelling, video recording, metal problems, and rules of origin. Furthermore, Indian textile industries have largely faced these issues with China, the United States, Japan, Thailand, Vietnam, and Singapore.

Conclusions: According to the findings, India should prioritize developing trade with all RCEP countries other than Vietnam and China in order to maximize its competitiveness. Also, India is no longer as competitive, particularly in the cotton industry.

Keywords: RCEP, India, Non-Tariff Barriers, Textile Trade

Streszczenie

Przedmiot i cel pracy: Artykuł opiera się na badaniach pierwotnych dotyczących wpływu barier pozataryfowych na indyjskich producentów tekstyliów prowadzących interesy z niektórymi krajami RCEP.

Materiały i metody: Badanie jakościowe przeprowadzono w trzech indyjskich stanach: Pendżab, Haryana i Radżastan. Najważniejsze firmy we wszystkich trzech stanach to firmy produkcyjne, a dziewięć z dwudziestu z nich zajęło się problemem barier pozataryfowych.

Wyniki: Główne wyniki badania wykazały, że indyjscy producenci tekstyliów napotykają przeszkody, takie jak antydumping, certyfikacja, cła, dokumentacja, ochrona środowiska, ograniczenia eksportowe, etykietowanie, nagrywanie wideo, problemy z metalami i reguły pochodzenia. Co więcej, indyjski przemysł tekstylny w dużej mierze borykał się z tymi problemami w Chinach, Stanach Zjednoczonych, Japonii, Tajlandii, Wietnamie i Singapurze.

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Wnioski: Zgodnie z ustaleniami, Indie powinny nadać priorytet rozwojowi handlu ze wszystkimi krajami RCEP innymi niż Wietnam i Chiny, aby zmaksymalizować swoją konkurencyjność. Ponadto Indie nie są już tak konkurencyjne, szczególnie w przemyśle bawełnianym.

Słowa kluczowe: RCEP, Indie, bariery pozataryfowe, handel tekstyliami

1. Introduction

The textile and garment industries have become essential for growing economies. These industries employ close to 13 million people in terms of employment (Balasubramanyam and WEI, 2005). Furthermore, this sector has contributed around 14% and 4% to the industry and GDP, respectively (Shetgaokar, 2021). Since ancient times, various other economies, particularly Japan, have made important contributions to the export of clothes. China now contributes significantly to global textile exports. Vietnam and Bangladesh are two developing countries with textile and apparel industries (Ray et. al. 2016). The importance of the textile and garment industries has grown throughout time. This good effect, together with the booming textile and apparel sector, resulted in the signing of the “Agreement on Textiles and Clothes” (ATC) on January 1, 1995 (Walkenhorst 2005). The textile and garment sector is a critical component of the supply chain. As well as RCEP countries make large and vital contributions to the growth of the global textile trade (Erokhin & Ivolga, 2021). Because the RCEP reduces tariffs and facilitates trade, it is expected to increase intra-regional textile and clothing trade. According to the World Trade Organization (WTO) statistics, RCEP countries supplied 16.2% of global imports and 46.8% of global textile and apparel exports in 2018 (Chin et. al. 2020). The importance of textile trade to India’s economy is demonstrated by the fact that the textile and apparel industry is the second most popular industry in the nation, behind agriculture. As a result of fashion’s rapid growth, the global economy’s demand for textiles and apparel is increasing every day. The global textile and apparel market was valued at US\$1.5 trillion in 2017. The annual compound growth rate has increased by 4% (Rout and Saini, 2021). India is ranked second in textile manufacturing and third in filament manufacturing, behind China (Elbehri et. all., 2003). Under the multifiber agreement, India has inked a number of bilateral agreements with developed nations such as the US, Canada, and the EU. The share of Indian textile exports to the above stated nations has grown over time. Between 1991 and 2005, it was 72%; it will increase to 74% between 2019 and 2020 (Bhandari, 2021). Along with other important economies, textiles are exported from India. These include, but are not limited to, China, Sri Lanka, Bangladesh, Türkiye, the United Arab Emirates, Saudi Arabia, South Korea, Brazil, Pakistan, Canada, Egypt, and Hong Kong (Narayanan and Rungta, 2014). Furthermore, China, Japan, and Korea are among the RCEP countries that provide textile inputs. However, certain ASEAN nations manufacture textiles and apparel (Chin et. al. 2020). Textile trade is critical in terms of the supply chain and interdependence of textile production among RCEP countries. Tariffs play a significant role in global trade competition. India is concerned about the RCEP’s decision to liberalize 85% to 90% of tariff lines. Unfortunately, India was unable to directly liberalize tariff lines with all RCEP member countries (Ray et. al., 2021). Because China, Australia, and New Zealand, among others, do not have Free Trade Agreements with India, India is particularly concerned about tariffs with RCEP countries. In view of the aforementioned scenario, this study focuses on Indian textile exports to a few selected of RCEP countries, including Australia, China, Japan, Malaysia, South Korea, and Vietnam.

2. Data coverage and methods

Data Sources:

The study uses a mixed-methods approach, combining secondary quantitative data with primary qualitative data. Data sources include:

UN Comtrade Database: India and RCEP countries (e.g., China, Vietnam, Indonesia, Malaysia, etc.) from 1991 to 2019. The World Integrated Trade Solution (WITS) and TRAINS Database provide full information on Non-Tariff Measures (NTMs) imposed by RCEP nations on Indian textile exports.

WTO I-TIP (Integrated Trade Intelligence Portal): Classifies and tracks the frequency of non-tariff obstacles such as Technical obstacles to Trade (TBT), Sanitary and Phytosanitary (SPS) measures, quotas, and licensing requirements.

Interviews/questionnaires (where applicable): Exporters and industry stakeholders in India provided feedback to better understand the practical consequences of NTBs.

The methodology includes the following constituents:

- Product categories are identified using the Standard International Trade Classification (SITC) Rev. 3 three and four digit level categorization.
- The textile committee of Ludhiana provided a list of companies for the preliminary study. This list had been utilized in conjunction with multistage sampling to estimate non-tariff barriers. India's states were chosen initially, followed at random by the country's textile firms.
- A planned schedule was employed to collect information from the three states of Punjab, Haryana, and Rajasthan.

Limitation of the study:

The survey had been limited to Punjab, Haryana, and Rajasthan because of their important contributions to India's textile sector, including cotton production, spinning, weaving, and garment manufacturing. These states are important hubs of both traditional and modern textile activity, and their strategic location in India's northern area allows for easy access to local and international markets. Furthermore, the decision was influenced by resource restrictions and the need to keep the scope focused and manageable for in-depth research. The data from these jurisdictions provide useful insights into broader regional patterns in the textile export business.

The names of the three Indian states are listed in Table 1 in order to gather the main data from those three states.

Table 1. Primary data from three states of India

Sr. No	Name of States
1.	Punjab
2.	Haryana
3.	Rajasthan

Source: Own elaboration.

2.1 Performance of india's total trade with world

Figure 1 shows the trends of India's total trade with world from 1991 to 2019. Firstly, India's exports to world have continuously increased from US\$ 17.90 billion in 1991 to US\$ 34.79 billion in 1997. But after 1997 its exports have decreased US\$ 33.21 billion in 1998 due to global crisis. However, again it has constantly enlarged from US\$ 36.67 billion in 1999 to US\$ 181.86 billion in 2008. After 2008 its export value has also declined at US\$ 176.77 billion due to financial crisis in the world. After 2009 its exports have witnessed to vary but tendency to rise from US\$ 220.41 billion in 2010 to US\$ 323.25 billion in 2019. The compound annual growth rate of India's total exports to world was to be found 12.54 per cent. In case of India's imports from world it has incessantly enlarged from US\$ 19.51 billion in 1991 to US\$ 52.94 billion in 2000 (except 1993 year). After 2000 its import value has declined at US\$ 50.67 billion in 2001. Again India's imports from world have increased from US\$ 57.45 billion in 2002 to US\$ 315.71 billion in 2008. However, due to financial crisis its import value has declined US\$ 266.40 billion in 2009. India's global import values have varied since 2009, although they have generally increased, rising from US\$ 350.03 billion in 2010 to US\$ 478.88 billion in 2019. India's global imports have grown at a compound annual growth rate of 14.06 percent. Throughout the study period, India's trade balance with the rest of the globe has shown a downward trend. India's overall commerce has seen fluctuations, but values have climbed between 1991 and 2019.

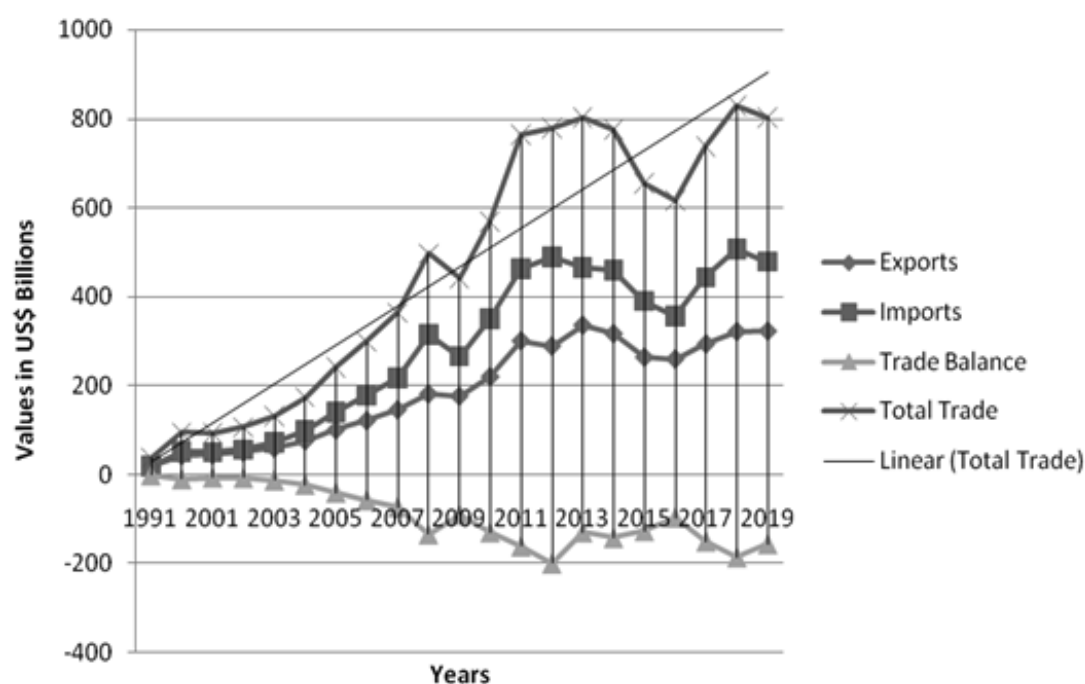


Figure 1. India's total trade with world (US\$ Billions)

Source: Compiled from the UN COMTRADE Database (2021).

Table 2 shows the trends of the Indian textile trade with the world from 1991 to 2019. As far as exports are concerned, it has fluctuated, however, increased consistently from US\$ 5.34 billion in 1991 to US\$ 24.58 billion in 2008 (except the year 1998). However, in 2009 India's exports fell from setbacks due to the global financial crisis and reduced to US\$ 21.03 billion. However, Indian exports have recovered and in 2013 totaled US\$ 48.58 billion. Indian textile exports increased once more in 2018 after declining in 2014. They reached US\$ 42.24 billion. However, India's textile exports to the global market, valued at US\$ 37.99 billion, have once again decreased in 2019. India's textile exports had a compound annual growth rate of 8.24% over the study period. As a result, while the analysis of India's textile exports to the world has changed, the trade's trend has accelerated. India's global textile trade has experienced fluctuations in percentage change during the study period. However, India's global textile imports have also grown steadily, from US\$ 0.66 billion in 1991 to US\$ 14.31 billion in 2019 (excluding 1996 and 2015). In these two years, India's textile imports have also reduced as Indian textile exports due to the global financial crisis. In addition, after these years, Indian textile import from the world has enlarged. The compound annual growth rate of Indian textile imports accounts for 10.79 per cent. This growth rate has consisted highest from its textile exports, from this evidence Indian textile imports from world has increased as compared to its textile exports. While in respect of overall trade balance, it has remained positive over the study period from 1991 to 2019. This scenario shows that the total trade balance is favourable for India. In the case of percentage change of imports, the same trend has been witnessed to find whereas the overall trade has increased from 1991 to 2019. The trend of total trade of India's textile with the world is growing from 1991 to 2019. The compound annual growth rate of India's total trade with world records is 8.69 per cent. Although the previous picture reveals that India's trade balance persists positive, however, among Southeast Asian countries, India runs in to trade deficit with leading economies. In the context of the total trade deficit, India has an amount of US\$ 88 billion. Only China accounts for US\$ 52 billion, and Other countries also involved, i.e. are Australia, Indonesia, South Korea, Japan, and Malaysia (US\$ 6.15 billion), (US\$ 11 billion), (US\$ 9.48 billion), (US\$ 5.10 billion), and (US\$ 4.67 billion) respectively, (Chandran, 2018). Thus, if the trade deficit declines with the aforementioned economies, the textile trade will be more enhanced at the extreme level. The reason behind this is that these economies are already engaged in FTAs with India.

Table 2. Trends in india's textile trade with world (US\$ Billions)

Year	Exports	Imports	Trade Balance	Total Trade
1991	5.34	0.66	4.68	6.01
1995	8.88 (13.93)	1.84 (2.66)	7.04	10.73
2000	11.37 (10.44)	2.48 (12.45)	8.88	13.86
2005	17.58 (13.93)	5.26 (29.66)	12.32	22.85
2010	32.80 (55.98)	7.52 (19.98)	25.28	40.36
2015	39.76 (-9.03)	10.59 (-0.48)	29.17	50.40
2016	36.57 (-8.03)	11.06 (4.36)	25.51	47.66
2017	39.30 (7.46)	11.98 (8.33)	27.32	51.31
2018	42.24 (7.48)	12.64 (5.57)	29.59	54.92
2019	37.99 (-10.05)	14.31 (13.15)	23.68	52.34
CAGR	8.24	10.79	7.50	8.69

Source: Compiled from the UN COMTRADE Database (2021).

Note: Meaning of CAGR is compound annual growth rate.

Note*: Values in parentheses show percentage change of india's textile trade with world.

Table 3 signifies the trends in the Indian textile trade with RCEP countries from 1991-to 2019. India's textile exports to selected RCEP countries have witnessed varied, but it has improved from 1991 to 2019. It has been raised from US\$ 0.53 billion in 1991 to US\$ 5.04 billion in 2019 at a growth rate of 11.66 per cent. The percentage change in its exports has also followed go up and downtrend and consistently negative except for a few years. The case of India's textile import from selected RCEP countries has also varied; however, its propensity rise from 1991 to 2019. At the same time, its imports have been enhanced or increased more as compared to its textile exports from US\$ 0.24 billion in 1991 to US\$ 7.10 billion in 2019 at a growth rate of 13.03 per cent. As the percentage, the change in its textile imports was distinct but remained positive during the study period. The growth rate of Indian textile imports has continued highest from its textile exports except for a few years, and it led to the overall trade balance, which remained positive except few years. It is evident from this scenario that India's textile trade has increased and improved during the study period, and it was found to be positive from 1991 to 2001. This trade is favourable for India. During these periods, India's textile exports have increased more as compared to their textile imports. However, after the period from 2002 to 2009, the unfavourable condition experienced in the textile trade of India and its imports have more enlarged compared to its textile exports. Trade has been constrained, mainly for economic and other reasons. Conversely, during the period from 2010 to 2015, India's trade balance has again found to be positive. At this time, India's textile exports have raised more than its textile imports. After 2015, both India's textile exports and imports have increased, but its textile imports have increased effectively compared to their textile exports. Hence again, India's trade balance was found to be negative. Although India's trade balance has been found negative, it can be improved at the global level over the period. Among RCEP countries, China is broadly expected to become the largest apparel consumer in the coming years at the international level.

Table 3. Trends in india's textile trade with selected rcep countries (US\$ Billions)

Year	Total Exports	Total Imports	Total Trade	Trade Balance
1991	0.53	0.24	0.77	0.29
1995	0.83 (5.06)	0.62 (-8.82)	1.45	0.21
2000	1.04 (-4.59)	0.90 (18.42)	1.94	0.14
2005	1.83 (22.00)	2.80 (46.60)	4.63	-0.97
2010	6.75 (163.67)	4.28 (24.06)	11.03	2.47
2015	6.98 (-22.44)	6.11 (-0.49)	13.09	0.87
2016	5.36 (-23.21)	6.28 (2.78)	11.64	-0.92
2017	5.54 (3.36)	6.78 (7.96)	12.32	-1.24
2018	6.79 (22.56)	7.11 (4.81)	13.90	-0.32
2019	5.04 (-25.77)	7.10 (-0.05)	12.14	-2.06
CAGR	11.66	13.03	12.32	

Source: Compiled from the UN COMTRADE Database (2021).

Note: Meaning of CAGR is compound annual growth rate.

Note*: Values in parentheses show percentage change of india's textile trade with selected RCEP Countries.

2.2 Changing structure of india's textile exports with selected RCEP countries (1991-2019).

Table 4, 5 and 6 has shown the changing structure of India's textile exports with selected RCEP countries namely Australia, China, Japan, Malaysia, South Korea, and Vietnam during the study period. Firstly, India's textile exports to Australia has increased for *Textile yarn, Fabrics, woven, of man-made textile materials, Special yarns, special textile fabrics and related products, Made-up articles, wholly or chiefly of textile materials, Floor coverings, Sacks and bags, of textile materials, of a kind used for the packing of goods, Made-up articles of textile materials, n.e.s., Carpets and other textile floor coverings, knotted, whether or not made up, Carpets and other textile floor coverings, tufted, whether or not made up, and Carpets and other textile floor coverings, woven, not tufted or flocked, whether or not made up*. India's textile exports to China has increased for textile commodities i.e. *Vegetable textile fibres, Other man-made fibres suitable for spinning; waste of man-made fibres, Textile yarn, Cotton fabrics, woven, Fabrics, woven, of man-made textile materials, Other textile fabrics, woven, Special yarns, special textile fabrics and related products, Made-up articles, wholly or chiefly of textile materials*.

Table 4. Changing structure of india's textile exports with selected RCEP countries (1991-2019)

Commodity Name	Australia	China	Japan	Malaysia	South Korea	Vietnam
Cotton	***	**(-)	+	***	***	-
Vegetable textile fibres	***	**(+)	***	***	***	***
Synthetic fibres suitable for spinning	***	**(-)	***	***	***	+
Other man-made fibres suitable for spinning; waste of man-made fibres	***	**(+)	***	***	***	***
Textile yarn	+	+	+	+	-	+
Cotton fabrics, woven	-	+	-	-	+	+

Commodity Name	Australia	China	Japan	Malaysia	South Korea	Vietnam
Fabrics, woven, of man-made textile materials	+	**(+)	***	-	+	+
Other textile fabrics, woven	-	+	-	-	+	**(-)
Tulles, lace, embroidery, ribbons, trimmings and other smallwares	***	***	***	***	***	**(-)
Special yarns, special textile fabrics and related products	+	+	+	+	+	+
Made-up articles, wholly or chiefly of textile materials	+	**(+)	+	+	+	***
Floor coverings	+	***	-	+	+	***
Cotton (other than linters), not carded/combed	***	**(-)	-	***	***	***

Source: Compiled from the UN COMTRADE Database (2021).

Note 1: (*) Disappearing commodities over the period.

Note 2: (**) Emerging commodities over the period.

Note 3: (***) No export of India to partner countries for this commodity.

Note 4: (+) means India's exports increased for this commodity during the period.

Note 5: (-) means India's exports decreased for this commodity during the period.

Table 5. Changing structure of india's textile exports with selected RCEP countries (1991-2019)

Commodity Name	Australia	China	Japan	Malaysia	South Korea	Vietnam
Cotton linters	***	**(-)	***	***	***	***
Cotton waste (including yarn waste and garnetted stock)	***	**(-)	***	***	***	**(+)
Artificial fibres suitable for spinning	***	**(+)	***	***	***	***
Waste (including noils, yarn waste, and garnetted stock) of man-made fibres	***	*	***	***	***	***
Yarn of wool or animal hair (excluding wool tops)	***	***	+	***	+	***
Cotton yarn, other than sewing thread	-	+	-	+	-	+
Synthetic filament yarn	***	***	***	***	***	+
Other synthetic filament yarn	***	***	***	-	-	+
Artificial and man-made filament yarn	***	***	-	***	***	***
Yarn (other than sewing thread) of staple fibres; synthetic monofilament	***	***	+	***	+	+
Yarn of textile fibres	***	***	***	***	-	***
Cotton fabrics, woven, unbleached	-	-	-	-	+	***
Other woven fabrics, containing 85% or more by weight of cotton, bleached, dyed, printed or otherwise finished,	-	***	***	***	-	**(+)
Other woven fabrics, containing 85% or more by weight of cotton, bleached, dyed,	***	***	***	***	+	+
Fabrics, woven, of synthetic filament yarn	***	***	***	-	***	+
Fabrics, woven, of synthetic staple fibres, containing less than 85% by weight of such fibres, mixed mainly or solely with fibres other than cotton	***	**(-)	***	-	***	+
Fabrics, woven, of artificial filament yarn	***	***	***	-	***	***

Source: Compiled from the UN COMTRADE Database (2021).

Note 1: (*) Disappearing commodities over the period.

Note 2: (**) Emerging commodities over the period.

Note 3: (***) No export of India to Partner countries for this commodity.

Note 4: (+) means India's exports increased for this commodity during the period.

Note 5: (-) means India's exports decreased for this commodity during the period.

Table 6. Changing structure of india's textile exports with selected RCEP countries (1991-2019)

Commodity Name	Australia	China	Japan	Malaysia	South Korea	Vietnam
Fabrics, woven, of silk or of silk waste	-	-	***	-	-	***
Fabrics, woven, containing 85% or more by weight of wool or of fine animal hair	***	***	***	***	***	**(-)
Fabrics, woven, of jute/of other textile bast fibres of group 264	***	***	-	***	***	***
Narrow woven fabrics	***	***	***	***	***	**(-)
Twine, cordage, ropes and cables and manufactures thereof	-	***	***	***	***	***
Wadding, wicks, and textile fabrics and articles for use in machinery or plant	***	***	+	***	***	***
Special products of textile materials	***	**(+)	***	***	***	***
Sacks and bags, of textile materials, of a kind used for the packing of goods	+	***	***	***	***	***
Bed linen, table linen, toilet linen and kitchen linen	-	***	+	***	***	***
Curtains and other furnishing articles, n.e.s., of textile materials	***	***	+	+	+	***
Made-up articles of textile materials, n.e.s.	+	***	+	-	-	***
Carpets and other textile floor coverings, knotted, whether or not made up	+	***	***	+	***	***
Carpets and other textile floor coverings, tufted, whether or not made up	+	***	***	***	***	***
Carpets and other textile floor coverings, woven, not tufted or flocked, whether or not made up	+	***	+	-	-	***
Carpets and other textile floor coverings, n.e. s	-	***	-	-	-	***

Source: Compiled from the UN COMTRADE Database (2021).

Note 1: (*) Disappearing commodities over the period.

Note 2: (**) Emerging commodities over the period.

Note 3: (***) No export of India to Partner countries for this commodity.

Note 4: (+) means India's exports increased for this commodity during the period.

Note 5: (-) means India's exports decreased for this commodity during the period.

3. Primary analysis

The structured schedule has been used to collect primary data through qualitative approach from three states of India i.e. Punjab, Haryana, and Rajasthan. These three states have determined their share in textile industries because the shares of these three states have tremendous and incredible contribution in Indian textile trade. The study has also looked at the pattern of non-trade barriers, or NTMs, from the exporter's point of view, which aids in identifying obstacles when specific NTMs measures are applied. The purpose of the survey is to determine and evaluate how NTMs affect India's textile exports. For the primary survey, the list of firms has been provided by textile committee of Ludhiana. The firms have been selected randomly with the help of the list to estimate Non-Tariff Barriers (NTBs). There are some NTBs are included like anti-dumping, certification, customs, documentation, environmental, export restriction, labelling, and rules of origin.

A. Results of the survey

The two types of exporters surveyed are as following:

Manufacturer exporter: Manufacturer exporter is one who manufactures goods and exports or aims to export such goods. The manufacturer exporter attains and expands raw materials at his factory and exports completed products. Therefore, the manufacturer exporter obtains the export order and exports in its own name.

Merchant exporter: Merchant exporter is one who engages in trading activity and exporting or proposing to export goods. Merchant exporter acquires the material from a manufacturer and exports in his firm's name. Consequently, the merchant exporter acquires the order from the international market and it does not have own manufacturing unit or processing factory.

B. Findings related with Non-Tariff Barriers

The survey has conducted for seventeen firms. Firstly, in the case of Punjab, the survey has conducted for nine firms shown in Table 4. Among, nine firms, six firms have been faced the problem of Non-Tariff Barriers i.e. 66.67 per cent. In the context of Haryana, a field survey was carried out for four firms and only one firm has faced the problem of Non-Tariff Barriers i.e. 25 per cent. Similarly, in the case of Rajasthan, the survey was conducted for a total of four firms and out of four firms, only two firms have been tackled the difficulty of Non-Tariff Barriers i.e. 50 per cent.

Table 4. Sample size of indian textile firms

Sr. No	Export Centre	No. of Firms	Non-Tariff Barriers
1.	Punjab	9	6(66.67)
2.	Haryana	4	1(25)
3.	Rajasthan	4	2(50)
5.	Total	17	9(45)

Source: Field Survey, 2018.

Note: Figure in parenthesis reports of NTBs in Percentage.

Table 5 displays the types of Indian textile firms; out of a total of seventeen textile firms, fifteen are manufacturers, or 88.24 per cent, while only two are merchants, or 11.76 per cent. Therefore, this scenario indicates that a greater proportion of textile firms are export manufacturers. Which textile firms the manufacturer exporters are prepared to export their product too. In other words, manufacturer exporters produce their own materials and export them to their respective destinations. While it can be seen that a percentage of very small textile firms, namely 2 (11.76) textile firms, fall into the category of merchant exporter, this is not the case. Lastly, the remaining greater than 15 (88.24) textile firms were manufacturer exporters. It means that the number of manufacturers has increased.

Table 5. Types of indian textile firms

Sr. No	Type of Firms	No. of Firms
1.	Manufacturer Exporter	15(88.24)
2.	Merchant Exporter	2(11.76)
3.	Total firms	17

Source: Field Survey, 2018.

Note: Figure in parenthesis reports Percentage.

Table 6 provides a breakdown of the textile firm's annual revenue in terms of its turnover. This classification is divided into four categories: less than five crores, five to forty-nine crores, fifty to ninety-nine crores, and more than one hundred crores. First, the annual revenue of three textile firms has remained below five crores, or 17.65 per cent. In the category of firms with a turnover between 5 and 49 crore rupees, seven textile firms are included, or 41.18 per cent, have been established. Except for all other categories, this category contained the highest number of textile firms of India. In the range of 50 to 99 crore, only one textile firm has been identified, or 5.88 per cent. In the final category, greater than 100 crores, six textile firms, or 35.29 per cent, have been identified. It indicates that the largest number of textile firms are in the category of 5 to 49 crore, while the smallest number of textile firms are in the category of 50 to 99 crore.

Table 6. Details of indian textile firm's turnover

Sr. No	Turnover in Rs.	No. of Textile Firms
1.	Less than 5 Crore	3(17.65)
2.	5 to 49 Crore	7(41.18)
3.	50 to 99 Crore	1(5.88)
4.	>100 Crore	6(35.29)

Source: Field Survey, 2018.

Note: Figure in parenthesis reports Percentage.

Table 7 depicts the list of textile firms' major export partners for the primary survey. The study of major export partners of textile firms reveals that the summary of exporting countries of textile firms is relatively diverse, with ASEAN, South Asia, Europe, Africa, North America, Gulf Countries, etc. being the major exporting nations of the various regions. The United States, China, ASEAN nations, and Japan are common export partners for all textile firms of three states of India. While the textile exports of textile firms have been acknowledged throughout the universe in all three states (Punjab, Haryana, and Rajasthan). In the end, Centex Fabrics Export Unit and Nahar Spinning Mills LTD were the textile firms of India with the most textile export partners, while all other textile firms export the least.

Table 7. List of Major Export Partners of Firms

Sr. No.	Export Centre	Major Export Partners
1.	Centex Fabrics Export Unit (Ludhiana, Punjab)	U.K, USA, China, Japan, Singapore, Australia, Germany, Switzerland, Nether Land, Malaysia, New Zealand, South Korea, Mexico
2.	Nahar Spinning Mills LTD (Ludhiana, Punjab)	Bangladesh, China, Japan, South Korea, Pakistan, Taiwan, Mauritius, Egypt, Vietnam, Thailand, Mauritius, Israel, Poland, Spain, Egypt, Sri Lanka, Brazil
3.	Jain Shawls (Ludhiana, Punjab)	Netherland, Germany, Australia, Türkiye, USA, Japan, Canada, Italy
4.	Swami Textile PVT. LTD (Ludhiana, Punjab)	USA, Germany, Italy
5.	Miyan Bazaz (Jaipur, Rajasthan)	USA, Australia, UK, South Africa
6.	Savvy Corporation Garment Export House (Jaipur, Rajasthan)	USA, France, Japan
7.	Sel Manufacturing Co Limited (Ludhiana, Punjab)	China, Columbia, Peru, Singapore, Philippines, Portugal, Germany, Pakistan, Bangladesh, South Korea
8.	Vardhman Textile (Ludhiana, Punjab)	China, Japan, Thailand, USA
9.	Kymo India PVT. LTD (Gurgram, Haryana)	Germany, USA, Japan, UK

Source: Field Survey, 2018.

Note: Bold countries are Selected RCEP countries.

The Non-Tariff Barriers faced by textile firms of three states i.e. Punjab, Haryana, and Rajasthan of India with their partner countries are outlined in Table 8. The study exposes that the summary of export countries is relatively varied and the main exporting countries of the different region are ASEAN, South Asia, Europe, Africa, North America, Gulf Countries, etc. USA, China, ASEAN countries, and Japan are common export partners of firms among all. The exports of all three states are spreaded all over the world. Relatively, other firms i.e. Jain Shawls, Swami Textile Pvt. Ltd, Savvy Corporation Garment Export House, and Kymo India Pvt. Ltd have grown their export destinations more than other firms have. Among seventeen firms, only nine firms have been chasing the problem of Non-Tariff Barriers. Firstly, the firm

Centex Fabrics Export Unit has tackled the difficulty of NTBs i.e. certification, documentation, standard, accessories, Sanitary, and Phytosanitary (SPS) and environmental, etc. These problems are existed with partner countries namely China, Japan, and the USA. The problem of certification endures with China, and Japan and Sanitary and Phytosanitary (SPS) with the USA. The name of the certificate is “Certification of Origin¹.” Throughout the survey, main thing is to be noted that the problem of accessories has occurred from 10 to 20 per cent with partner countries and the example of these accessories is Trims². It is in context of barriers, the problem of documentation like Global Organic Textile Standard³ remained mainly with partner countries namely Europe, Bangladesh, and Pakistan and one other problem of OEKO tax⁴ certificate. Along with this, the other barriers are also involved in that Asia Pacific Trade Agreement mainly with partner country China. The obstacles of documentation and certification faced by Vardhman Textile firm, and both problems have been persisted with partner countries i.e. Japan, Thailand, Vietnam, and Singapore. Correspondingly, almost with all partner countries, the problem of certification has tackled by the firm Kymo India Pvt, Ltd. It seems from the results maximum problems have been noted i.e. certification, documentation, social compliance, and accessories by firms.

The certification and documentation both are involved in the type of Non-Tariff Barriers. These NTBs happened when countries imports from other countries for example certification, documentation etc. This is the main requirement to export countries. The certificate of origin covers information regarding the product. Along with this other GSP, the OEKO tax certificate both are required for exporting countries. The study also examines the impact of the financial slowdown in the trade of firms. Out of seventeen firms, the five firms have faced the problem of financial slowdown during the trade-in various periods. The problem of maximum financial slowdown appeared in the period 2016-2017 by the firms surveyed. Moreover, some firms also suffered in 2017-18 from financial problems. The trade of these firms have also been declined and fluctuated due to demonetization in the year 2016. These problems have shifted the buyers, and export orders have been declined because the market fluctuated during the financial crisis. The seven per cent trade of some firms has also been diversified due to the slowdown period.

Table 8. List of non-tariff barriers faced by firms

Sr. No.	Name of Firms	Type of NTBs	Partner Countries
1.	Centex Fabrics Export Unit (Ludhiana, Punjab)	Certification	USA, Japan and China
		Documentation	USA, Japan and China
		Standards	USA, Japan and China
		Sanitary and Phytosanitary (SPS)	USA, Japan and China
		Environmental	USA
		Accessories	USA, Japan
2.	Nahar Spinning Mills Ltd (Ludhiana, Punjab)	Import Restriction	Türkiye
		Environmental	All Destinations
3.	Jain Shawls (Ludhiana, Punjab)	Documentation	Japan
		Labelling	USA
		Social Compliance	USA
		Video Recording	USA
		Customs	All Destinations

¹ Details on the goods, its destination, and the exporting nation are included in the certificate of origin.

² Trims and Accessories these are those materials i.e. have used in a garment other than the main fabric (shell fabric).

³ Supported by independent certification of the whole textile supply chain, the Global Organic Textile Standard (GOTS) is the industry-leading textile processing standard for organic fibers, covering ecological and social requirement.

⁴ OEKO-Tex textiles and fabrics are safe for human use and verified to be free of dangerous chemicals. When a product is certified organic, it indicates that it was produced in accordance with stringent regulations on the use of pesticides, fertilizers derived from petroleum, and synthetic materials.

Sr. No.	Name of Firms	Type of NTBs	Partner Countries
4.	Swami Textile PVT. LTD (Ludhiana, Punjab)	Documentation	All Destinations
		Labelling	Japan
		Social compliance	Regarding Air shipment
		Accessories	USA
5.	Miyan Bazaz (Jaipur, Rajasthan)	Certification	All Destinations
		Minimum import price	USA and Europe Countries
		Social compliance	USA and Europe Countries
6.	Savvy Corporation Garment Export House (Jaipur, Rajasthan)	Labour	All Destinations
		Social Compliance	USA
		Video Recording	USA
		Accessories	USA
		Metal Problem	USA
7.	Sel Manufacturing Co Limited (Ludhiana, Punjab)	Anti-Dumping	Pakistan
		Documentation	China
8.	Vardhman Textile (Ludhiana, Punjab)	Certification	Japan, Thailand, Vietnam and Singapore
		Documentation	Japan, Thailand, Vietnam and Singapore
9.	Kymo India PVT. LTD (Gurugram, Haryana)	Certification	All Destinations

Source: Field survey record.

Note: Bold countries are selected RCEP countries.

The percentage of non-tariff barriers in India's textile firms is depicted in figure 2. Although textiles and apparel have contributed significantly to India's exports, India's textile and apparel exports face numerous Non-Tariff Barriers in the major markets. Figure 2 demonstrates that the highest percentage of non-tariff barriers, 17 per cent, is associated with Documentation, followed by 14 per cent for Social Compliance. When exporting to their partner nations, the firms have encountered difficulties with documentation and social compliance. In addition, ten per cent of the companies have encountered accessory issues. According to the new findings of the present study, a number of new results have been discovered, whereas this issue was neither discussed nor discovered in previous research. Other new findings of non-tariff barriers include video recording, metal problems, and labours with respective percentages of 7 per cent, 3 per cent, and 3 per cent. The proportion of certain non-tariff barriers, namely import restriction, environmental, anti-dumping, standards, Sanitary and Phytosanitary (SPS), and minimum import price, has remained unchanged. The problem of customs has persisted with firms, accounting for 7 per cent, while other non-tariff barriers account for 30 per cent of Indian textile exporters' difficulties.

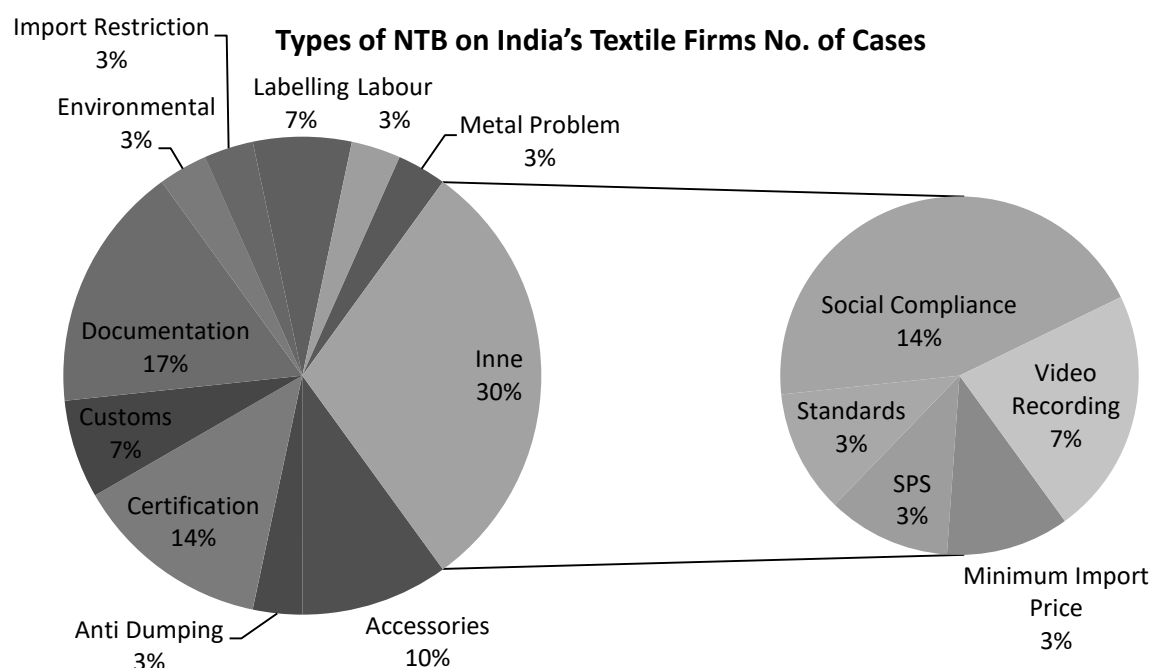


Figure 2. Percentage of non-tariff barriers in Indian textile firms

Source: Field survey record.

3.1 Effect of financial slowdown

The study also revealed the impact of economic slowdown on a company's trade. Five companies out of seventeen have experienced a financial slowdown or crisis during the course of their business operations. 2016-2017 was the year in which the most businesses encountered the issue. In addition, some businesses addressed the financial issue in 2017-18. During the period of demonetization, firm trade has also decreased and fluctuated. As a result of market fluctuations brought on by the financial crisis, buyer names are changing and export orders have decreased. Due to slowdown or crisis, some firms have also diversified their trade by seven per cent.

As previous studies related to non-tariff barriers the research of Saqib and Taneja (2005), Indian exporters to Sri Lanka and ASEAN have encountered non-tariff barriers. From 1997-98 to 2002-03, both Sri Lanka and ASEAN increased non-tariff barriers on Indian exports, according to this study (Saqib and Taneja, 2005). The study has also examined the occurrence of non-tariff measures pertinent to Indian exports and assessed the extent to which Indian exporters face NTBs via an exporter survey. The majority of firm-level barriers were related to the implementation of Technical Barriers to Trade and Sanitary and Phytosanitary Measures. The study suggests Mutual Recognition Agreements (MRAs) between India and ASEAN nations, which would reduce transaction costs by eliminating the need for repeated testing and certification. In addition, the study recommends domestic measures that should be implemented in order to comply with standards regarding the application of Technical Barriers to Trade (TBT) and Sanitary and Phytosanitary (SPS) measures. Saini (2009) examined the survey of India's textiles and apparel exporters, who were required to identify and evaluate the impact of Non-Tariff Measures (NTMs) and the Cost of Compliance (COC) expenditure. The most frequently utilised categories are technical regulations, product & production process standards, and conformity assessment of technical barriers. Buyer proposals of suppliers and testing & certification agencies, stringent social compliance measures, and discriminatory treatment based on standards, import duty, and other benefits are typical occurrences associated with NTMs. Surprisingly, NTMs are not only viewed as a marketing and promotional tool, but also as one that promotes industry efficiency and competitiveness. In addition, the financial crisis has reduced export orders, with a greater impact on high-end fashion garments where product and market diversification

is unfavourable due to fluctuating customer preferences. Consequently, previous studies have provided a fundamental understanding of non-tariff barriers, such as technical trade barriers and sanitary and phytosanitary, testing and certification, social compliance, discriminatory treatment based on standards, import duties, etc. Nonetheless, the current survey evaluates a number of new non-tariff barriers, including accessories, video recording, social compliance, labelling, environmental, and metal issues, among others. According to this study, nearly all companies have encountered the aforementioned non-tariff barriers. India has had the most difficulties with China, Japan, Thailand, Vietnam, and Singapore, among all RCEP nations.

4. Conclusion

India's decision to withdraw from this Free Trade Agreement (FTA) in 2017 is due to the fact that signing RCEP was not a simple task for a variety of reasons. Despite the fact that India has not signed the RCEP, the textile industry has been identified as RCEP's primary and most significant sector. Therefore, there is an urgent need to analyse or calculate the role of the Indian textile trade with RCEP in the textile industry. In addition, this belief is supported by the fact that India has already signed FTAs with several RCEP nations. Moreover, India was the world's tenth largest importer and nineteenth largest exporter in 2018. In the case of Non-Tariff Barriers (NTBs), a qualitative survey was conducted in three Indian states: Punjab, Haryana, and Rajasthan. The top firms in all three states are manufacturing firms, and nine out of twenty have addressed the problem of non-tariff barriers. Common NTB issues for businesses include certification, documentation, social compliance, accessories, and video recording of the entire export processing, etc. The problem of NTBs affects partner nations, specifically China, Japan, and the United States. The certification issue persists with China, Japan, and the United States, in addition to the sanitary and phytosanitary (SPS) issue. To control these barriers, the Indian government should establish Non-Tariff Barriers policies. The government should ensure that trade standards are maintained. As global export markets expand, it is possible to conclude that RCEP will be an important trade agreement for India in textile industry.

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Appendix A

Table A1. List of surveyed firms

Sr. No	City	Name of Firms
1.	Ludhiana (Punjab)	Centex Fabrics Export Unit
2.	Ludhiana(Punjab)	Nahar Spinning Mills Ltd
3.	Ludhiana(Punjab)	Jawandsons
4.	Ludhiana(Punjab)	Jain Shawls
5.	Ludhiana(Punjab)	Swami Textiles Pvt.Ltd
6.	Ludhiana(Punjab)	R.B Knit Exports
7.	Ludhiana(Punjab)	Vardhman
8.	Ludhiana (Punjab)	Sel Manufacturing Co Limited
9.	Ludhiana (Punjab)	Eveline International
10.	Ludhiana (Punjab)	Shingora Shawls
11.	Phagwara (Punjab)	JCT Textile
12.	Amritsar (Punjab)	OCM Private Limited
13.	Gurgaon (Haryana)	Garud Enterprise
14.	Gurgaon (Haryana)	Kymo India PVT. LTD
15.	Gurgaon (Haryana)	Ambadi Enterprise
16.	Panipat (Haryana)	AKS Rugs Co.
17.	Sitapura, Jaipur (Rajasthan)	Savvy Cooperation
18.	Durgapura, Jaipur (Rajasthan)	Mangalam Arts
19.	Jaipur (Rajasthan)	A.K International
20.	Sitapura, Jaipur (Rajasthan)	Miyan Bazaz Exports

Source: Field survey, record.

Table A2. List of textile firms of three states of india faced the non-tariff barriers

Sr. No.	Name of Firms
1.	Centex Fabrics Export Unit
2.	Nahar Spinning Mills LTD
3.	Jain Shawls
4.	Swami Textile PVT. LTD
5.	Miyan Bazaz
6.	Savvy Corporation Garment Export House
7.	Sel Manufacturing Co Limited
8.	Vardhman Textile
9.	Kymo India PVT. LTD

Source: Field survey, record.

Table A3. List of top exported products by textile firms of india

Sr. No	SITC Code	Name of Product
1.	651	Textile Yarn
2.	655	Knitted or Crocheted Fabrics
3.	657	Special Yarn
4.	6589	Made-Up Article
5.	261	Silk
6.	263	Cotton
7.	6525	Other Man-Made Fibers
8.	268	Wool
9.	653	Fabrics of Woven of Man-Made Textile Materials
10.	654	Other Textile
11.	659	Floor Covering
12.	265	Vegetable Textile Fibers
13.	266	Synthetic Fibers
14.	652	Cotton Fibers
15.	6596	Carpets and other textile floor coverings, n.e.s.
16.	2641	Jute and Other Textile Bast Fibers
17.	6513	Cotton Yarn

Source: Field survey, record.

Table A4. List of certification and documentation

Sr. No	Name of Certificate	Type of Certificate
1.	COO	Certification of Origin
2.	GSP ⁵	Generalize System Preferences
3.	CT-PAT	Custom Trade Partnership Against Terrorism ⁶
4.	OEKO tax certificate	Tax related with Textile
5.	APTA	Asia Pacific Trade Agreement ⁷

Source: Field survey record.

⁵ Generalized System of Preferences is a preferential tariff system expanded by advanced economies to developing economies. This is also known as preference providing or receiving or beneficiary economies.

⁶ The Custom-Trade Partnership against Terrorism is a type of voluntary supply- chain defence program, it's given by U.S. Custom and Border Protection (CBP). The objective of this program is to improve the security of supply chain of private companies in context of terrorism.

⁷ APTA is the ancient preferential trade agreement between Asia- Pacific countries namely Bangladesh, China, India, Lao PDR, Mongolia, Republic of Korea and Sri Lanka.

